Annual Drinking Water Quality Report for 2010
CITY OF ALBANY
35 ERIE BOULEVARD
(Public Water Supply ID# 0100189)

Introduction

To comply with State regulations, the Albany Water Board will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met State drinking water health standards. We are proud to report that our system had no violations of a maximum contaminant level in the 2010 - reporting year. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact City of Albany, Department of Water and Water Supply, at 518-434-5300. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Albany Water Board meetings. The meetings are held the third Thursday of each month, in the Mayor's conference room, at 8:00A.M.

Where does our water come from?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is the Alcove Reservoir, which is surface water and is located on the Hannacroix Creek in the Town of Coeymans. This reservoir has a capacity of 13.5 billion gallons, an average depth of 25 feet and a maximum depth of 75 feet. The Basic Creek Reservoir, in the town of Westerlo, is a secondary source that may be used to augment flow into the Alcove Reservoir to maintain the Alcove elevation. During 2010, our system did not experience any restriction of our water usage.

The water receives treatment including, pre-oxidation, disinfection, addition of coagulants, sedimentation, pH and alkalinity adjustment, and filtration, at the Feura Bush Filtration Facility. Chlorine is added as a residual disinfectant to maintain microbiological quality throughout the Distribution System.

Facts and Figures

Our water system serves 101,000 residents through 29,000 service connections. The total water produced in 2010 was 6,662,452,841 gallons. The daily water production equaled 18,253,295 gallons, with the highest daily production of 23,160,096 gallons. The amount of water delivered to customers was 6,607,908,841 gallons, allowing 54,544,000 gallons for filter washes and other filtration plant domestic use. In 2010, water customers were charged $2.57 per 100 cubic feet of water, which equals $3.44 per 1000 gallons.

Are there contaminants in our drinking water?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, should be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the Albany County Health Department at 518-447-4620.

Table of Detected Contaminants							
Contaminant	**Violation Yes/No**	**Date of Sample**	**Level Detected (Avg./Max) (Range)**	**Unit of Measure**	**MCLG**	**Regulatory Limit (MCL, TT or AL)**	**Likely Source of Contamination**
Total Coliform	No	2-3 5-17 9-20	3 positive samples	N/A	0	MCL= 5% or more Positive of sites sampled per month	Naturally present in the environment.
Turbidity *	No	Various	0.28 NTU	NTU	N/A	TT= < 1.0 NTU	Soil runoff.
Turbidity *	No	Six times Daily	100.0 % <0.3	NTU	N/A	TT= 95% of samples < 0.30	Soil runoff.
Fluoride	No	Monthly	0.11 0.06-0.25	mg/l	N/A	MCL 2.2 mg/l	Erosion of natural deposits.
Chloride	No	Daily	32.9 32.7-39.6	mg/l	N/A	MCL 250 mg/l	Soils, road salt.
Iron	No	Weekly	30.0/ND ND-30.0	ug/l	300 ug/l	MCL 300 ug/l	Soils, transmission line corrosion.
Manganese	No	Weekly	30.0/ND ND/30.0	ug/l	50	MCL 50 ug/l	Soils.
Calcium	No	Quarterly	18.0 17.5-18.5	mg/l	N/A	none	Occurs naturally in almost all waters.
Sodium	No	Quarterly	16.5 16.0-17.0	mg/l	N/A	20.0 mg/l******	Occurs naturally in almost all waters.
Sulfate	No	Monthly	11.6 10.3-14.7	mg/l	N/A	MCL 250 mg/l	Occurs naturally in almost all waters.
Color	No	Daily	1.0-2.0 1.0-2.0	Color Units	N/A	15.0 Color units	Natural metallic ions, humic and fulvic acids and dissolved plant components.
Odor	No	Daily	1.0-3.0 ND-3.0	Threshold units	N/A	3 Threshold units	Decaying vegetation and metabolites of microbiota.
Nitrate	No	Yearly	<0.02 <0.02	mg/l	N/A	MCL=10.0 mg/l	Occurs naturally.
Copper	No	6/10-9/10	0.0245 ** ND-0.084	mg/l	1.3	AL = 1.3	Corrosion of pipes.
Lead	No	6/10-9/10	8.0 *** ND-12	ug/l	0	AL = 15	Corrosion of pipes.
Total Trihalomethane	No	2/2010 5/2010 8/2010 11/2010	46.1**** 25.0-68	ug/l	N/A	MCL = 80ug/l RAA	Disinfection by-products, resulting from chlorinating Drinking water.
Total Organic Carbon	No	Daily	2.04 1.75-2.25	mg/l	N/A	TT	Occurs naturally in almost all waters.
Chlorine Residual	No	Six times daily	0.70-1.10	mg/l	4.0 mg/l	MCL = 4.0 mg/l	Added to drinking water to inhibit microbial growth.
Haloacetic Acids	No	2/2010 5/2010 8/2010 11/2010	10.6**** 6.6-14	ug/l	N/A	MCL = 60 ug/l RAA	Disinfection by-products, resulting from chlorinating Drinking water.

Radionuclides							
Alpha particles	No	Bi-weekly	0.43 0.25-1.5	pCi/L	NA	15 picocuries/L	Erosion of natural deposits.
Beta particles	No	Bi-weekly	0.66 0.35-1.5	pCi/L	NA	50*****	Erosion of natural deposits.
Radium	No	Bi-yearly	0.68 ND-0.85	pCi/L	NA	5 picocuries/l	Erosion of natural deposits.

Notes & Definitions:

* – Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year occurred on various dates (0.28 NTU). State regulations require that turbidity must always be below 0.30 NTU. The regulations require that 100% of the turbidity samples collected have measurements below 0.30 NTU.

** – The level presented represents the 90th percentile of the 51 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 51 samples were collected at your water system and the 90th percentile value was the 0.03 mg/l with the highest detected value of 0.09mg/l. The action level for copper was not exceeded at any of the sites tested.

*** – The level presented (8 ug/ l) represents the 90th percentile of the samples collected. The action level for lead was exceeded at zero (0) of the 51 sites tested.

**** – This level represents the running annual average calculated from data collected.

***** The state considers 50 pCi/l to be the level of concern for beta particles.

****** For people on severely restricted sodium diets.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment, or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Picocuries per liter (pCi/L): A measure of radioactivity in water.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal: (MRDLG) The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Non-Detected Contaminants:

According to state regulations, the Albany Water Board routinely monitors your drinking water for various contaminants.

Contaminants that were analyzed for but were found to be below detection limits are not included in this report, however, all required testing was completed according to Local, State, and Federal laws.

Additionally, your water is tested for coliform bacteria on a daily basis.

The contaminants that were detected in your drinking water are included in the Table of Detected Contaminants.

What does this information mean?

As you can see by the table, our system had no violations in the reporting year 2010. We have learned through our

testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements.

The City of Albany has implemented a program to minimize lead levels in your drinking water. This program includes; 1) the adjustment of the pH and alkalinity levels to minimize corrosion 2) the replacement of lead service lines as distribution lines are replaced and 3) public education. The department conducted lead and copper testing in 2010, and will also be testing again in 2011.

> "Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. The City of Albany is responsible for providing high quality Drinking Water, but cannot control variety of materials used in plumbing components. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Also you may flush your tap for 30 seconds to 2 minutes before using tap water, for cooking or drinking. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791), or at *http://www.epa.gov.safewater.lead."*

Is our water system meeting other rules that govern operations?

During 2010, our system was in compliance with applicable Local, State and Federal drinking water regulations: operating, monitoring and reporting requirements.

Information on Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Information on Giardia

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. Ingestion of Giardia may cause giardiasis, an intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where hand washing practices are poor.

Do I Need to Take Special Precautions?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

Why Save Water and How to Avoid Wasting It?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Run only full loads in dishwashers and washing machines.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you may save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, if it moved, you have a leak.

System Improvements

In 2010, the Albany Water Board continued operating the UV Disinfection System at the Loudonville Reservoirs. Retro-fitting the chlorination facilities at the Loudonville Basins.

Improvements at the Filtration Plant included: Numerous structural improvements to the filtration facility.

Enhanced coagulation to reduce disinfection by-products continues at the filtration plant.

In 2010 the Albany Water Board continued leasing the Six-Mile Water Works, on a long-term basis, as an alternative drinking water source in case of a natural or manmade disruption of service to our primary drinking water source. Upgrades at this facility are ongoing.

Albany's water system will continue with our enhanced security program, begun in 1999, at all of our facilities.

In addition, in 2007, and again in 2010 Albany's Drinking Water was judged to be the best tasting water in all of New York State, an honor that all Water Department Employees are proud of.

Closing

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions concerning your drinking water. (518-434-5300)